AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A pump comprising:

a rotor and a stator;

a housing enclosing the rotor and the stator, the housing having an inlet for receiving a ~~pumped~~ first fluid, and a port positioned downstream from the inlet; and

means for injecting ~~into the housing via the port,~~ a second fluid into the housing through the port, ~~for acting~~ wherein the second fluid acts on deposits on a surface of the rotor and a surface of the stator ~~to enable the removal of the deposits~~.

2. (currently amended) The pump according to Claim 1~~,~~ comprising a plurality of ports.

3. (currently amended) The pump according to Claim 2~~,~~ wherein the ports are located radially about the housing.

4. (currently amended) The pump according to Claim 2~~,~~ wherein the ports are located along a length of the rotor.

5. (currently amended) The pump according to Claim 2~~,~~ wherein at least one of the ports includes a nozzle for spraying fluid.

6. (currently amended) The pump according to Claim 5~~,~~ wherein the nozzle is integrally formed within at least one of the ports.

7. (currently amended) The pump according to Claim 6~~,~~ wherein the housing comprises a two skinned wall having an inner skin and an outer skin and forming a cavity ~~therein~~between the inner and outer skins.

8. (currently amended) The pump according to claim 7~~,~~ wherein the inner skin of the

housing is adapted to form the stator.

9. (currently amended) The pump according to Claim 1~~,~~ wherein the pump is a screw pump having two threaded rotors.

10. (currently amended) The screw pump according to Claim 9~~,~~ wherein the port is located downstream of a first two complete turns of thread of the threaded rotors.

11. (currently amended) The pump according to claim 1~~,~~ wherein the pump is a claw pump.

12. (currently amended) The pump according to claim 1~~,~~ wherein the pump is a Roots pump.

13. (currently amended) The pump according to Claim 1~~,~~ wherein the second fluid ~~for acting on deposits~~ is a liquid.

14. (currently amended) The pump according to Claim 1~~,~~ wherein the second fluid ~~for acting on deposits~~ is a solvent.

15. (currently amended) The pump according to Claim 1~~,~~ wherein the second fluid ~~for acting on deposits~~ is a gas.

16. (currently amended) The pump according to Claim 15~~,~~ wherein the second fluid ~~for acting on deposits~~ is steam.

17. (currently amended) The pump according to Claim 1~~,~~ wherein the second fluid ~~for acting on deposits~~ comprises a reactive substance for reacting with the deposits.

18. (currently amended) A pump comprising:

a rotor and a stator;

a housing enclosing the rotor and the stator and having a port; and

means for injecting ~~into the housing via the port,~~ a fluid into the housing through the port

~~comprising~~ wherein the fluid comprises a reactive substance for reacting with particulates on a surface of the rotor and a surface of the stator to ~~enable the particulates to be removed therefrom~~.

19. (currently amended) The pump according to Claim 18~~,~~ wherein the fluid comprises a halogen.

20. (currently amended) The pump according to Claim 18~~,~~ wherein the fluid comprises ~~one~~ a compound selected from the group consisting of ClF_3, F_2, and NF_3.

21. (cancelled)

22. (currently amended) A method of managing deposits within a pump, the pump comprising a rotor and a stator, and a housing enclosing the rotor and the stator, the housing having an inlet for receiving ~~pumped~~ a first fluid, and downstream from the inlet, a port, the method comprising:

injecting into the housing via the port a second fluid for acting on deposits on ~~the~~ a surface of the rotor and a surface of the stator ~~to enable removal of the deposits from the surfaces~~.

23. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid is injected from a plurality of ports.

24. (currently amended) The method according to Claim 23~~,~~ wherein the ports are located radially about the housing.

25. (currently amended) The method according to Claim 23~~,~~ wherein the ports are located along a length of the rotor.

26. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ is a liquid.

27. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ is a solvent.

28. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ is a gas.

29. (currently amended) The method according to Claim 28~~,~~ wherein the second fluid ~~for acting on deposits~~ is steam.

30. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ comprises a reactive substance for reacting with the deposits.

31. (cancelled)

32. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ comprises a halogen.

33. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ comprises ~~one~~ a compound selected from the group consisting of ClF_3, F_2, and NF_3.

34. (currently amended) The method according to Claim 22~~,~~ wherein the second fluid ~~for acting on deposits~~ is injected through the port at predetermined time intervals.

35. (currently amended) The method according to Claim 22 further comprising the steps of:

(a) monitoring the performance of the pump;

(b) determining accumulation of the deposits on the internal surfaces based on the monitored performance;

(c) calculating a rate of flow of the second fluid ~~for acting on deposits~~ required to compensate for the accumulation of the deposits; and

(d) adjusting the rate of flow of the second fluid ~~for acting on deposits~~ to reflect the

calculated rate of flow of the second fluid ~~for acting on deposits~~.

36. (previously presented) A method for managing deposits within a pump mechanism by delivering to a rotor of the pump, a fluid for dissolving, diluting or otherwise disengaging deposits which have accumulated on the internal working surfaces of the pump, the method comprising the steps of:

(a) monitoring the performance of the pump;

(b) calculating the rate of accumulation of the deposits on the internal working surfaces of the pump based on the monitored performance;

(c) calculating a rate of flow of the fluid, required to compensate for the accumulation of the deposits; and

(d) adjusting the rate of flow of the fluid being delivered to the rotor to reflect the calculated rate of flow of the fluid .

37. (currently amended) The method according to Claim 36~~,~~ wherein the pump is inoperative as the fluid is delivered, the method further comprising the step of applying torque to rotors of the pump to overcome any remaining impeding force.

38. (previously presented) The method according to Claim 37 further comprising the steps of:

introducing a thermal fluid into a cavity formed within a housing of the pump, the cavity encircling the rotors;

and heating the thermal fluid in the cavity to raise the temperature of the fluid and the deposits to release the deposits prior to the step of applying torque to the rotors.

39. (cancelled)

40. (cancelled)

41. (cancelled)

42. (currently amended) The pump according to Claim 4~~,~~ wherein at least one of the ports

includes a nozzle for spraying the second fluid.

43. (currently amended) The pump according to Claim 42~~,~~ wherein the nozzle is integrally formed within at least one of the ports.

44. (currently amended) The pump according to Claim 5~~,~~ wherein the second fluid ~~for acting on deposits~~ is a liquid.

45. (currently amended) The pump according to Claim 44~~,~~ wherein the second fluid ~~for acting on deposits~~ is a solvent.

46. (currently amended) The pump according to Claim 5~~,~~ wherein the second fluid ~~for acting on deposits~~ is a gas.

47. (currently amended) The pump according to Claim 46~~,~~ wherein the second fluid ~~for acting on deposits~~ is steam.

48. (currently amended) The pump according to Claim 5~~,~~ wherein the second fluid ~~for acting on deposits~~ comprises a reactive substance for reacting with the deposits.

49. (currently amended) The pump according to Claim 48~~,~~ wherein the second fluid comprises a halogen.

50. (currently amended) The pump according to any of Claim 48~~,~~ wherein the second fluid comprises ~~one~~ a compound selected from the group consisting of ClF_3, F_2, and NF_3.

51. (currently amended) The pump according to Claim 1~~,~~ wherein the housing comprises a two skinned wall having an inner skin and an outer skin and forming a cavity ~~therethrough~~between the inner and outer skins.

52. (currently amended) The pump according to claim 52~~,~~ wherein the inner skin of the

housing is adapted to form the stator.

53. (previously presented) The pump according to Claim 1 wherein the pump is connected to a chemical vapor deposition apparatus having a process chamber and an outlet of the process chamber, wherein the pump inlet is connected to the outlet of the process chamber, and wherein the deposits are a by-product of a chemical vapor deposition process.

54. (currently amended) The method according to Claim 23~~,~~ wherein the second fluid is injected through the ports at predetermined intervals.